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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,523	02/12/2004	Guang Q. Li	03-34 US	6418

23693 7590 10/27/2005

Varian Inc.  
Legal Department  
3120 Hansen Way D-102  
Palo Alto, CA 94304

EXAMINER
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THERKORN, ERNEST G

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/777,523	Applicant(s) LI, GUANG Q.	
	Examiner Ernest G. Therkorn	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-44 is/are pending in the application.
- 4a) Of the above claim(s) 16-18, 25-39 and 42-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-15, 19-24, 40 and 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-15, 19, 23, 24, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291). At best, the claims differ from each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in reciting use of an equilibrated substrate. Karger (U.S. Patent No. 4,996,343) (column 4, lines 12-21 and column 4, line 65-column 5, line 1) discloses that use of an equilibrated silica aids in reproducibility and stability. Fairbank (Journal of Chromatography 830 (1999) pages 285-291) (Abstract and page 286, column 2, the first full paragraph, particularly lines 15-19) discloses that there is an optimum humidity level and that shorter equilibration times give poor reproducibility. It would have been obvious to use an equilibrated substrate in each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January

2002, Vol. 18, pages 69-72 because Karger (U.S. Patent No. 4,996,343) (column 4, lines 12-21 and column 4, line 65-column 5, line 1) discloses that use of an equilibrated silica aids in reproducibility and stability and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) (Abstract and page 286, column 2, the first full paragraph, particularly lines 15-19) discloses that there is an optimum humidity level and that shorter equilibration times give poor reproducibility.

Claims 9-15, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) as applied to claims 1-6, 8-15, 19, 23, 24, 40, and 41 above, and further in view of Neue (U.S. Patent No. 5,374,755). At best, the claims differ from each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) in reciting endcapping. Neue (U.S. Patent No. 5,374,755) (column 2, line 13-column 3, line 19) discloses endcapping supports modified by polar silanes reduces undesirable interaction with unmodified silanols. It would have been obvious to endcap in each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S.

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Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) because Neue (U.S. Patent No. 5,374,755) (column 2, line 13-column 3, line 19) discloses endcapping supports modified by polar silanes reduces undesirable interaction with unmodified silanols.

Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) and Neue (U.S. Patent No. 5,374,755) as applied to claims 9-15, 23, and 24 above, and further in view of Kirkland (U.S. Patent No. 5,869,724). At best, the claims differ from each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) and Neue (U.S. Patent No. 5,374,755) in reciting use of a mixture of silanes. Kirkland (U.S. Patent No. 5,869,724) (column 12, lines 1-8, 26-28, and 47-49) discloses that it is desirable to double endcap by dimethylsilylation and trimethylsilylation. It would have been obvious to use a mixture of endcapping silanes in each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S.

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Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) and Neue (U.S. Patent No. 5,374,755) because Kirkland (U.S. Patent No. 5,869,724) (column 12, lines 1-8, 26-28, and 47-49) discloses that it is desirable to double endcap by dimethylsilylation and trimethylsilylation.

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) as applied to claims 1-6, 8-15, 19, 23, 24, 40, and 41 above, and further in view of either Cabrera (U.S. Patent No. 5,104,547) or Ng (U.S. Patent No. 6,296,768). At best, the claims differ from each of Abbott (U.S. Patent No. 4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755), Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang (Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291) in reciting use of cyclodextrin. Ng (U.S. Patent No. 6,296,768) (column 2, lines 17-26) discloses use of cyclodextrin ligands allows for efficient bulk/industrial scale enantioseparations. Cabrera (U.S. Patent No. 5,104,547) (column 1, lines 8-13) discloses that use of

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cyclodextrin as a ligand yields improved separation of enantiomers by chromatography.

It would have been obvious to use a cyclodextrin in each of Abbott (U.S. Patent No.

4,298,500), Cabrera (U.S. Patent No. 5,104,547), Neue (U.S. Patent No. 5,374,755),

Nau (U.S. Patent No. 6,071,410), Liu (U.S. Patent No. 6,645,378), and Huang

(Analytical Sciences January 2002, Vol. 18, pages 69-72 in view of Karger (U.S. Patent

No. 4,996,343) and Fairbank (Journal of Chromatography 830 (1999) pages 285-291)

either because Ng (U.S. Patent No. 6,296,768) (column 2, lines 17-26) discloses use of

cyclodextrin ligands allows for efficient bulk/industrial scale enantioseparations or

because Cabrera (U.S. Patent No. 5,104,547) (column 1, lines 8-13) discloses that use

of cyclodextrin as a ligand yields improved separation of enantiomers by

chromatography.

Claims 16-18 and 42-44 are withdrawn as being drawn to non-elected species.

Claims 25-39 are withdrawn as being drawn to non-elected inventions.

The remarks urge that examining the additional two inventions would not be a serious burden on the examiner. However, the additional searching and different issues of patentability would be an enormous burden on the examiner.

The remarks that claims 35-45 should be examined because there are linking claims. However, according to the August 2005 revision of the MPEP:

Linking claims and the inventions they link together are usually either all directed to products or all directed to processes (i.e., a product claim linking properly divisible product inventions, or a process claim linking properly divisible process inventions).

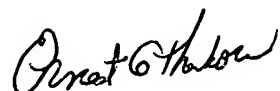
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As such, there is no link between the process of making claims and product claims.

Accordingly, the restriction and election of species have been reconsidered, deemed proper, and made final for the reasons of record.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT  
October 25, 2005